IMPACT OF OCCUPATIONAL SPECIFIC DISPENSATION ON THE VACANCY RATE AND PROFILE OF DOCTORS WORKING AT THE DR GEORGE MUKHARI HOSPITAL

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A research report submitted to the Faculty of Health Sciences, University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Public Health in the field of Hospital Management

April, 2012

DECLARATION

I, Trevor Sylvester Joseph Fisher, declare that this research report is my own work. It is being submitted for the degree of Master Public Health in the field of Hospital Management at the University of the Witwatersrand, Johannesburg. It has not been submitted before any degree or for any examination at this or any other University.

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April 2012

DEDICATION

This study is dedicated to my father, Bennie George Fisher and my daughter, Michelle Laura Carly Fisher, who both inspired me but unfortunately passed away in 2009. May their souls rest in peace.

ACKNOWLEDGEMENT

I acknowledge the determined and dedicated assistance of my supervisor, Dr Debashis Basu, who really walked the extra mile to guide me with this study. I also acknowledge the assistance extended by Professor Shan Naidoo, Head of the Department of Community Health, Ms Maria Nzolo, my personal Assistant and Mr Jabulani Peter Mtswheni, from the HR department at the Dr George Mukhari Hospital, who selflessly helped me with gathering of information. Last but not least, I acknowledge my wife, son and daughter who were very patient with me and gave me moral support.

ABSTRACT

Background: In 2007, occupational specific dispensation (OSD) was introduced for public sector employees in South Africa which is unique to each identified occupation in the public service. The OSD for doctors was later introduced in 2009. The purpose of the OSD was to improve government's ability to attract and retain skilled employees, through increased remuneration. Previously, employees in the public service were remunerated by a single salary structure which did not adequately address the diverse needs of occupational categories in the public service (DPSA, 2009). Although the South African government has been investing a significant amount of resources to attract and retain medical doctors in public service, no formal study has been done to evaluate its impact in reducing the vacancy rate and retention of medical doctors in public hospitals in South Africa. This study aimed to assess the vacancy rate and the profile of doctors working at the Dr George Mukhari Hospital (DGMH) a public sector tertiary academic hospital for last three years (2007-2010) to determine the impact of OSD.

Aim: To determine the impact of OSD on the vacancy rate and the profile of doctors working at the DGMH during a three year period (2007 to 2010)

Methodology: A cross sectional study design was used to extract retrospective data routinely collected from the Personnel Salaries (PERSAL) system. Variables for the study included: Number of posts per category (Medical officer/ Registrar/ Specialist) funded/ filled and vacant, Profile (age, gender, ethnicity, nationality). The data was exported to MS EXCEL for storage and analysis. No primary data collection was done. The study commenced after obtaining approval from the University of the Witwatersrand 'Human research Ethics Committee (Medical) and Gauteng Department of Health and Social development.

Results: The vacancy rate for doctors at the DGMH did not show any significant change after the introduction of ODS. The Hospital employed around 40% female doctors. The majority of doctors were Black and Coloured doctors, although certain department were still staffed by White doctors. There were no significant changes in the mean age of the doctors working in the Hospital. As expected the specialists were generally older than the registrars and medical officers. More South African doctors were appointed in 2010 in comparison to 2008.

Conclusion: OSD did not have the intended effect of decreasing the vacancy rate of doctors at the DGMH. This might be because unfunded posts did not get additional funding to free them and therefore the status quo would have remained the same with or without OSD. It suggests that the additional funding should be considered for vacant unfunded posts. Hopefully, the funding model for NHI will dramatically increase the funding in the public sector allowing for OSD and an increase in funded vacant posts simultaneously.

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GLOSSARY OF TERMS

Academic Hospital: A hospital that acts as a teaching platform for a medical school (Medical Dictionary, 2010).

Community Service Doctor: A doctor who does a compulsory period of community service for 1 year (Medical Dictionary, 2010)

Cross Border patients: Patients, who live in one Province and are referred to another for treatment mainly because their own Province does not provide the level of care needed.

Intern: A doctor who has recently qualified and does a mandatory training period of 2 years before he can register as an independent practitioner.

Medical Officer: A doctor who functions in a hospital without specializing.

OSD: Occupation Specific Dispensation. An increase in salary introduced after the 2007 strike aimed at retention of staff. Increases were specific for occupational classes.

Primary Care: Care provided by doctors and primary care nurses at the level of a general practitioner (Medical Dictionary, 2010).

Registrar: A doctor who is in the process of specializing in a post graduate degree.

Secondary Care: Care provided by basic specialists who have a post graduate qualification (Medical Dictionary, 2010)

Specialist: A doctor who has a post graduate qualification and functions as a specialist

Tertiary Care: Care provided by specialists who have “super” specialized in one of the sub-specialties, e.g. nephrology in internal medicine (Medical Dictionary, 2010).

Tertiary Hospital: A hospital that provides a mixture of tertiary and secondary care services (Medical Dictionary, 2010).

LIST OF ABBREVIATIONS

B	Black
C	Coloured
DGMH	Dr George Mukhari Hospital
HRH	Human resources for health
I	Indian
OSD	Occupational Specific Dispensation
PERSAL	Personnel Salary System
RWOPS	Remunerated work outside public service
W	White

CHAPTER 1
INTRODUCTION

The purpose of this study was to determine the impact of OSD on the vacancy rate and the profile of doctors working at the DGMH during a three year period. This introductory chapter covered the background to the study, statement of the problem, its aims and objectives and an outline of subsequent chapters.

1.1 BACKGROUND

Dr George Mukhari Hospital (DGMH) is a 1,500 bedded, tertiary academic institution situated in Pretoria in the Gauteng Province. It provides primary, secondary and tertiary care services for a population of 750,000 people in its immediate catchment area of GaRankuwa, Shoshanguve, Mabopane and Winterveld in Gauteng as well as cross border population of 5 million people from Limpopo and North West Provinces. The DGMH is the second largest of the four central Hospitals in the province of Gauteng. In terms of the National Health Act (South Africa, 2004), this Hospital is recently classified as a central Hospital (Department of Health, 2011a).

In April 2009, this Hospital experienced an unprecedented strike by a significant number of doctors owing to the lack of implementation of occupational specific dispensation (OSD). In addition to their grievances regarding salary increases, these doctors consistently mentioned unacceptable working conditions as a reason for the strike. The doctors at DGMH were more heavily involved in the strike than any other institution in the country. Nearly all medical officers, interns, community service doctors and registrars were involved in the strike. The doctors, who were on strike, complained that their salaries were not market related. They also complained that the agreement that was reached in 2007 regarding OSD for doctors had not been implemented. In addition, they felt that they were over-worked owing to a shortage of staff. Subsequently, OSD was

introduced in July 2009 to alleviate their concerns.

1.2 PURPOSE OF RESEARCH

The OSD had been implemented in South African public hospitals in 2009. It was expected to address the initial problem that led to the strike but no formal study has been done in South Africa to assess its impact on attracting doctors to public sectors and retaining them. It could be hypothesised that the introduction of OSD should have resulted in attracting doctors to public sectors and retaining them thereby reduction in vacancy rate. In addition, it would be important to determine if profile of doctors had changed after the introduction of the OSD.

1.3 RESEARCH QUESTION

What was the impact of the OSD on the vacancy rate of doctors and the profile of doctors working at the DGMH?

1.4 OBJECTIVES

1.4.1 BROAD OBJECTIVES

To determine the impact of the OSD on the vacancy rate of doctors working at the DGMH during a two year period (2008 to 2010) and their profile

1.4.2 SPECIFIC OBJECTIVES

1. To determine the vacancy rate for doctors working at the DGMH over a two period
2. To determine their demographic profile of (age, gender, ethnicity and nationality)

3. To determine the impact of OSD on vacancy rate and selected factors (such as age, gender, ethnicity, nationality, department, and position)

1.5 SUBSEQUENT CHAPTERS

So far, the background to the research has been discussed. Then, research question and objectives were defined in this first chapter. Brief outline of following chapters are described below.

Chapter Two Literature Review: The purpose of the literature review was to review pertinent literature and to discuss concepts related to the vacancy rates of doctors and the factors influencing these rates

Chapter Three Research Methodology: The chapter describes the research methodology, study design, setting, scope and data management techniques used in this study.

Chapter Four: Presentation of Results: This chapter deals with an analysis of the data collected for this study relating to its aims and objectives.

Chapter Five: Discussion: The findings from the review of the literature are incorporated in this chapter with the results obtained from the analysis in order to address the aims and objectives of the study.

Chapter Six: Conclusions and Recommendations: This constituted the last chapter of the report and derived conclusions from the research related to the objectives of this study, made recommendations and advocated areas for future research in the field of Human resource management related to medical doctors.

CHAPTER 2
LITERATURE REVIEW

In this chapter, relevant literatures into OSD with particular reference to the effects that OSD had on job retention and attraction of doctors into the public sector are discussed. In addition to published literature, information from various unpublished sources is also reviewed.

2.1 THE RELEVANCE OF HUMAN RESOURCES FOR HEALTH

'Human resources for health' (HRH) are defined as "the stock of all individuals engaged in the promotion, protection or improvement of population health". This includes both private and public sectors and different domains of health systems, such as personal curative and preventive care, non-personal public health interventions, disease prevention, health promotion services, research, management and support services (Figure 2.1). It is probably one of the important determinants of health outcome in a community (WHO, 2000). The classification of human resources is based on the primary intent of professional education and training. Human resources actually engaged in the health system can be referred to as the health system workforce or health workforce.

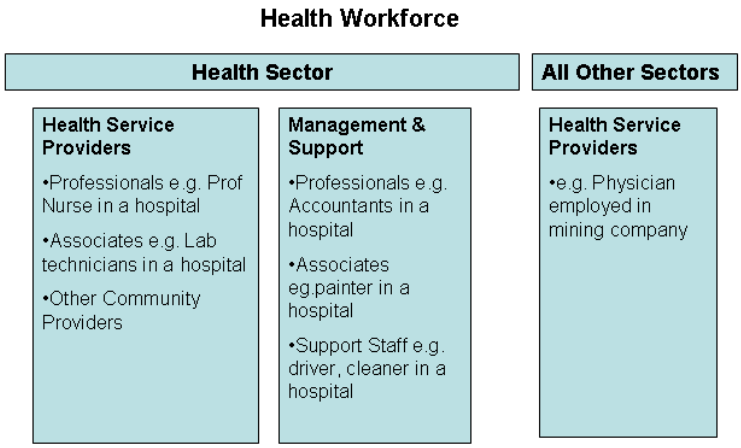

Figure 2.1 A broader picture of health workforce

The main issues related to HRH are shown in Figure 2.2 (Ferrinho and dal Poz, 2003), are: (a) Policy, regulation and planning, (b) Classification of health establishments and deployment of health professionals according to the levels of care (c) Management and performance improvement, (d) Labour market, Education, training and research, (e) HRH and priority health programmes and (f) Monitoring and evaluation. Figure 2.2 depicts the interrelationship among various factors that might have an influence on HRH.

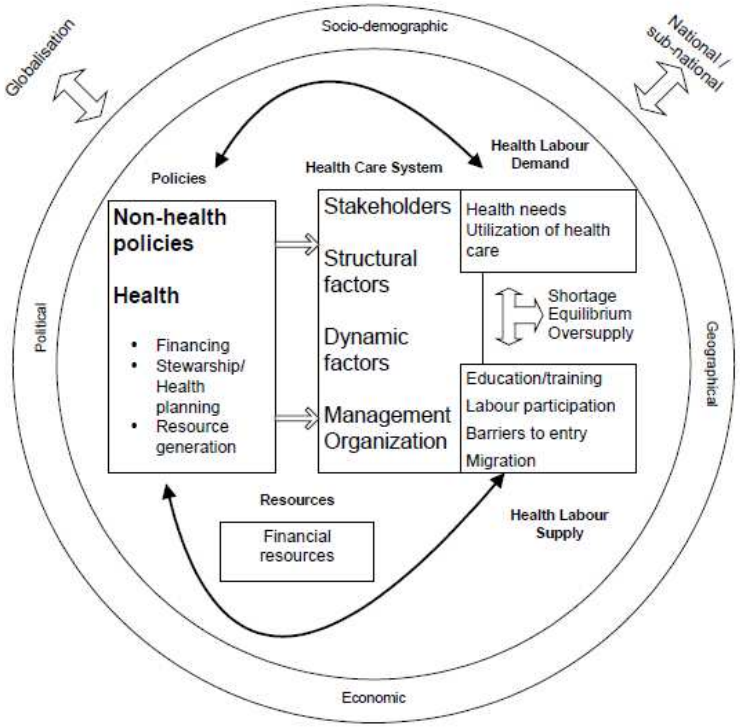

Figure 2.2 HRH conceptual framework

2.2 HUMAN RESOURCES FOR HEALTH CHALLENGES

The most significant component of any health system is its health personnel and its well-being. They are integral parts of a health system in which each of them contributes different skills and performs different functions (WHO, 2006). South Africa's National Department of Health has recognised this in view of latest policy thrusts (Department of Health, 2007).

In South Africa, health professionals consistently raise the issue of poor conditions under which they are expected to work as one of the factors that 'push' them out of the public health services into private and internationally. The working conditions are often described as strained; workloads and burnout are cited as their key 'push' factors (Rajaram, 2009). Awases, et al, (2004) listed these 'push' factors: high levels of absenteeism and burnout amongst staff; lack

of appropriate medical equipment and supplies; poor maintenance of equipment especially at the lower level hospitals; high vacancies in the public health services resulting in a shortage of critical staff; dilapidated facilities; and shrinking operational budgets.

Efficient and effective functioning of a health care system requires adequate number of skilled health professionals. With the increasing population as well as increase in burden of diseases, more health professionals are required than ever before.

2.3 THE HEALTH CARE ESTABLISHMENT

It is important to classify the health care establishments according to levels of care and to provide health services according to the need of the community. In South Africa, a decision has been taken in the 90s to focus on primary health care (level one or primary care). However, they are still not functioning at the optimum level resulting in mismatch of levels of establishments and the types of services providers. This also creates an additional burden on other institutions. For example, lack of functional level one health care institution results in additional burden to level two or three health care facilities. This may result not only an increase in mortality and morbidity but also burn-out among their staff (Rajaram, 2009). This problem is more pronounced in the Gauteng Province where the municipalities still provide level one services (which in terms of the National Health act should be transferred to the Province) resulting in lack of coordination among the various levels of care and poor service delivery (Gauteng Department of Health, 2007).

The nursing, medical and support staff in a healthcare institution provide the 'supply' side of health systems There is an increased demand from human service professionals to cope with the rapidly expanding healthcare needs of the population in South Africa. The changing epidemiological profile of disease and

increased patient numbers are having an impact on staff at healthcare institutions. It is critical to improve workplace burdens in particular staff retention, workloads, absenteeism, and a perceived indifference from management (Schneider and Oyedele, 2005). Human resource management in the health sector is recognized as a pivotal public health issue of importance in South Africa, if not globally.

A key public health concern, HRH, forms part of the central directive of health sector reform in post-1994 South Africa. More recently the National Health Systems priorities building on work done in 1999 had in their priorities for 2004-2009 described as one of its five key objectives the 'Strengthening of Human Resources for Health (Department of Health, 2006). Public hospitals in South Africa have been aptly described as 'highly stressed institutions.' Health professionals work in highly demanding situations with extreme pressure and strain. '*This often leads to increased stress, burnout and lack of job satisfaction which ultimately contributes to a decline in work performance, absenteeism, and intent to leave work*.' (von Holdt, and Murphy, 2006). Increased work burdens, stress and eventual burnout as some of the key 'push factors' were found to drive healthcare work force to leave their jobs (WHO, 2006). Awases, Gbary, Nyoni, et al. (2004) in a study in sub-Saharan Africa found that workers' concerns about lack of promotion prospects, poor management, heavy workload, burnout, lack of facilities, and a declining health service are among the push factors for migration.

2.4 MEDICAL DOCTORS AND PUBLIC HEALTH CARE ESTABLISHMENT

Medical doctors play a crucial role in health care establishments particularly in hospitals. However, changes in economic conditions have altered physicians' job limiting autonomy and reducing morale resulting in high turnover of staff and vacancy rates particularly in public hospitals (Konrad, Williams, Linzer, et al., 1999). The retention of doctors in these establishments in public sectors is

influenced by various factors described below.

Organisational culture of a health care establishment plays a key role on turn-over of health care establishments. There are various factors which might influence organisational culture in a health care establishment such as organisational commitment, organisational citizenship behaviour and job satisfaction, and various demographic variables (McManus, Keeling, Paice, 2004; Jacobs and Roodt, 2008).

Studies done in developing countries found doctors working at large hospitals had poor satisfaction level for workplace characteristics and higher levels of job stress in Pakistan (Khuwaja, Qureshi, Andrades, et al., 2004), India (Madaan, 2008; Kaur, Sharma, Talwar, et al., 2009), and South Africa (Mulder and Puri, 2010).

Work-hours and salary are found to be some of the major contributory factors (Kaur, 2009). Konrad, et al (1999) identified the following factors which might have significant influence on the job satisfaction of medical doctors: autonomy; relationship with colleagues, and patients; salary; available resources in Hospitals; bureaucracy; and opportunity for career advancement. Parenting also plays an important role (Cujec, Oancia, Bohm, et al, 2000). Educational support and continuous professional development were also found to play an important role for the retention of doctors in rural areas (Marais, de Villiers, Kruger, et al, 2007).

The ratios of doctors in South Africa are 1:4.5 in the public sector per 1000 population (van Rensburg and van Rensburg, 2000). The shortage of doctor is obvious and not in keeping with global trends. The shortage has put an increased burden on those working in the public sector and has been cited as a reason for burnout amongst staff (van Rensburg, Steyn, Schneider, et al., 2008).

2.5 OCCUPATIONAL SPECIFIC DISPENSATION FOR DOCTORS WORKING IN THE SOUTH AFRICAN PUBLIC SECTOR

The above section showed that salary is one of the factors found to be linked with job satisfaction of medical doctors. In 2007, the Department of Public Service Administration (DPSA) introduced OSD for public sector employees in South Africa that are unique to each identified occupation in public service. The OSD for doctors were subsequently introduced in 2009. The purpose of the OSD was to improve government's ability to attract and retain skilled employees, through increased remuneration. Previously, employees in the public service were remunerated by a single salary structure which did not adequately address the diverse needs of occupational categories in the public service. (DPSA, 2009). Although the South African government has been investing a significant amount of resources to attract and retain medical doctors in public service, no formal study has been done to evaluate its impact in reducing the vacancy rate and retention of medical doctors in public hospitals in South Africa.

This study aims to assess the vacancy rate and the profile of doctors working at the DGMH for last three years (2007-2010) to determine the impact of OSD.

CHAPTER 3
RESEARCH METHODOLOGY

The methodology for this study was selected on the basis of its aims. The study design was presented first followed by setting and scope of the study, and data collection methods, research tools and data analysis. Finally, issues surrounding ethics were discussed.

3.1 STUDY SETTING AND SCOPE

The setting of this study was the DGMH situated in the Tshwane District in Gauteng Province (Figure 3.1). All the doctors who had been working at this Hospital during the study period (2007 July to 2010 June) were included in this study. No primary data collection was done for this study.

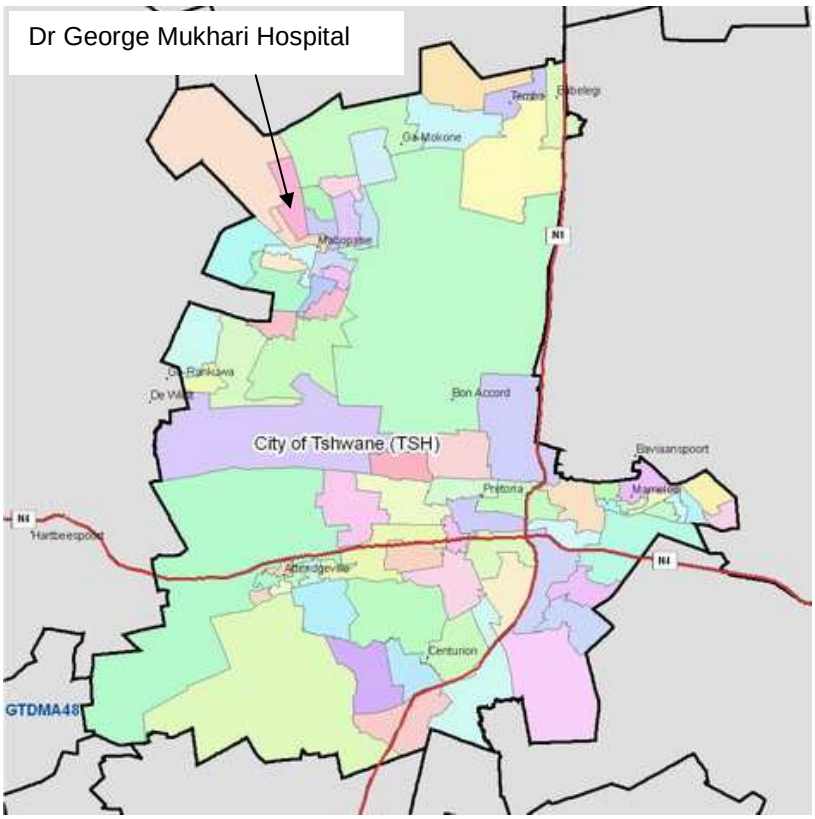

Figure 3.1 Tshwane Health District

3.2 STUDY DESIGN

A cross-sectional study design was used for this study. The retrospective data was collected from the PERSAL system. The data collection was anonymous. The data thus collected was converted into a computer-based spreadsheet.

3.3 STUDY PERIOD

The study period was two years (July 2008 to June 2010). The data were collected for two years (before and after introduction of OSD) to measure the impact of OSD on vacancy rate and few selected factors (such as age, gender).

3.4 STUDY POPULATION AND SAMPLING

The study population included records of all doctors from the DGMH, who had been working during the study period. This information was captured electronically and therefore readily available.

Table 3.1 Number of funded posts for Medical doctors

Type	Number
Intern	60
Community Service medical officer	8
Medical officer	109
Registrar	188
Specialist	155
Medical Manager	4
Total	524

The following doctors were excluded from the study population:

- Four medical managers were excluded as OSD did not apply to them.
- The 60 interns and 8 Community Service doctors were also excluded because they were placed in hospitals and did not have a choice in where they were placed or where they wanted to do their training.

- Session doctors were also excluded because they are not full time and do not necessarily depend on the income from the public sector.

Therefore, the final study population was 452. The records of all medical doctors were included. Therefore, no sampling was done.

3.5 DATA MANAGEMENT

3.5.1 VARIABLES

Variables used for the study are listed in Table 3.2.

Table 3.2 List of variables

Objectives	Variables	Type
1	Number of posts available per category (Medical Officers/ Registrars/ Specialists) per Department	Categorical
	Number of posts filled per category (Medical Officers/ Registrars/ Specialists) per Department	Categorical
2	Gender (Male/ Female)	Categorical
	Ethnicity (White (W)/ Black (B)/ Coloured (C)/ Indian (I)	Categorical

3.5.2 DATA COLLECTION

Data used for this study was routinely available electronically in the Personnel Salary System (PERSAL). The data from the PERSAL was exported to MS EXCEL. For confidentiality, identities of the staff were removed and study numbers were allocated for each staff member. The records of doctors who fulfil the inclusion criteria were included and the remaining records and other information were deleted.

3.5.3 DATA COLLECTION TOOL

MS EXCEL based data collection tools were designed for this study (Appendix B). The tools contain variables to be used specifically for this study. The data from the MS EXCEL was exported to these data collection tools.

3.5.4 ANALYSIS OF DATA

The researcher ensured that all data was analysed using the NCSS software (NCSS, 2007).

Descriptive statistics were computed as mean and frequencies (count and percentages). Paired t-test or Mann Whitney's test (when data was not normally distributed) was used to compare the continuous characteristics between the groups.

Comparisons between outcome variables with respect to exposure variables were examined by the use of contingency tables Chi-squared test (with Yates correction when necessary).

3.6 ETHICAL CONSIDERATIONS

The permission to the conduct the study at the DGMH was obtained from the Gauteng Department of Health and Social development (Appendix A). In addition, study was also approved by the University of the Witwatersrand 'Human research Ethics Committee (Medical) for approval (Appendix A). The study commenced after receiving necessary approvals from these bodies. The data was extracted from the electronic data base and captured into MS Excel based data collection tool and the identity of the doctors was removed to maintain confidentiality.

CHAPTER 4
RESULTS

The results obtained from the analysis of data were described in this chapter. The vacancy rates for medical doctors were presented first for two years (2008 and 2010) for the entire Hospital and different departments within the Hospital. Subsequently, the researcher presented the impact of OSD on gender, age, ethnicity and nationality.

4.1 THE VACANCY RATE FOR DOCTORS OVER A TWO-YEAR PERIOD

The Hospital has 452 posts for doctors. In 2008, 290 (64.2%) were filled in comparison to 292 (64.6%) in 2010. This implies after the introduction of OSD, only 2 extra posts were filled (Table 4.1). The vacancy rate remained alarmingly high (35.4%) with a decease in only -0.44%. There was no significant difference in vacancy rate between the two years (Chi-square test, p =0.94).

Table 4.1 Vacancy rate for doctors

Year	Total no of posts	**Number of posts filled**	**Vacancy Rate (%)**
2008	452	290	35.8%
2010	452	292	35.4%

The subsequent section analyse the data in more details by departments and post categories.

4.1.1 ANAESTHESIOLOGY AND CRITICAL CARE

The number of posts in the departments of Anaesthesiology and Critical care (ICU) is listed in Table 4.2. The vacancy rates increased in Anaesthesiology and remained very high in the Critical Care Department. The ICU, interestingly, did not fill in a single ‘Medical Officer post’ for last three years. Anaesthesiology

Department could not fill-in all the registrar posts. There was no significant difference in vacancy rate between the two years in these two departments (Chi-square test).

Table 4.2 Vacancy rate for doctors in Anaesthesia and Critical Care

Departments	2008			2010		Variance
	Number of posts available	Number of posts filled	Vacancy Rate (%)	Number of posts filled	Vacancy Rate (%)	% variance
Anaesthesiology						
MEDICAL OFFICER	4	8	-100.00%	3	25.00%	
REGISTRAR	20	13	35.00%	17	15.00%	
SPECIALIST	8	7	12.50%	6	25.00%	
Total Anaesthesiology	32	28	12.50%	26	18.75%	6.25%
ICU						
MEDICAL OFFICER	9	0	100.00%	0	100.00%	
REGISTRAR	1	1	0.00%	1	0.00%	
SPECIALIST	1	2	-100.00%	2	-100.00%	
Total ICU	11	3	72.73%	3	72.73%	0.00%

4.1.2 MEDICINE

The vacancy rates in the different Units under the Medicine Department are described in Table 4.3. The vacancy rates decreased in Internal Medicine and Neurology whereas remained unchanged in Dermatology and Psychiatry. Psychiatry Unit could attract more specialists. On the other hand, Internal Medicine and Cardiology had high vacancy rates for specialists. Alarmingly, Internal Medicine and Psychiatry Department could not fill-in all the registrar posts. Vacancy rates were not significantly different between the two years (Chi-square test).

Table 4.3 Vacancy rate for doctors in Medicine Units

Departments	Number of posts available	2008		2010		Variance
		Number of posts filled	Vacancy Rate (%)	Number of posts filled	Vacancy Rate (%)	% variance
Internal Medicine						
MEDICAL OFFICER	8	1	87.50%	7	12.50%	
REGISTRAR	28	24	14.29%	24	14.29%	
SPECIALIST	15	7	53.33%	6	60.00%	
Total Internal Medicine	48	32	33.33%	37	22.92%	-10.42%
ARV						
MEDICAL OFFICER	4	2	50.00%	1	75.00%	
REGISTRAR	0	0	0.00%	0	0.00%	
SPECIALIST	0	0	0.00%	0	0.00%	
Total ARV	4	2	50.00%	1	75.00%	25.00%
Cardiology						
MEDICAL OFFICER	3	2	33.33%	1	66.67%	
REGISTRAR	0	0	0.00%	0	0.00%	
SPECIALIST	6	1	83.33%	1	83.33%	
Total Cardiology	9	3	66.67%	2	77.78%	11.11%
Dermatology						
MEDICAL OFFICER	2	1	50.00%	1	50.00%	
REGISTRAR	4	3	25.00%	4	0.00%	
SPECIALIST	3	3	0.00%	2	33.33%	
Total Dermatology	9	7	22.22%	7	22.22%	0.00%
Neurology						
MEDICAL OFFICER	1	1	0.00%	1	0.00%	
REGISTRAR	5	4	20.00%	6	-20.00%	
SPECIALIST	5	1	80.00%	3	40.00%	
Total Neurology	11	6	45.45%	10	9.09%	-36.36%
Psychiatry						
MEDICAL OFFICER	2	0	100.00%	0	100.00%	
REGISTRAR	15	16	-6.67%	12	20.00%	
SPECIALIST	9	1	88.89%	5	44.44%	
Total Psychiatry	26	17	34.62%	17	34.62%	0.00%

4.1.3 SURGERY

The vacancy rates in the different Units under the Surgery Department are described in Table 4.4. The vacancy rates decreased in the General Surgery, whereas the rates remained unchanged or slightly changed in other Units. Alarmingly, all the posts in Trauma remained vacant and ENT Unit lost all the specialists. All the Units had a few vacancies for registrar posts except Orthopaedics and Urology. Chi-square test showed that there were no significant differences in vacancy rates in different units between the two years.

Table 4.4 Vacancy rate for doctors in Surgery Units

Departments	Number of posts available	2008		2010		Variance
		Number of posts filled	Vacancy Rate (%)	Number of posts filled	Vacancy Rate (%)	% variance
General Surgery						
MEDICAL OFFICER	3	1	66.67%	2	33.33%	
REGISTRAR	16	11	31.25%	13	18.75%	
SPECIALIST	10	4	60.00%	5	50.00%	
Total General Surgery	29	16	44.83%	20	31.03%	-13.79%
Cardio-thoracic						
MEDICAL OFFICER	2	2	0.00%	1	50.00%	
REGISTRAR	5	4	20.00%	4	20.00%	
SPECIALIST	6	2	66.67%	2	66.67%	
Total Cardio-thoracic	13	8	38.46%	7	46.15%	7.69%
ENT						
MEDICAL OFFICER	2	2	0.00%	1	50.00%	
REGISTRAR	6	4	33.33%	5	16.67%	
SPECIALIST	7	2	71.43%	0	100.00%	
Total ENT	15	8	46.67%	6	60.00%	13.33%
Neurosurgery						
MEDICAL OFFICER	3	5	-66.67%	3	0.00%	
REGISTRAR	6	3	50.00%	5	16.67%	
SPECIALIST	4	4	0.00%	3	25.00%	
Total Neurosurgery	13	12	7.69%	11	15.38%	7.69%

Table 4.4 Vacancy rate for doctors in Surgery Units (contd.)

Departments	Number of posts available	2008		2010		Variance
		Number of posts filled	Vacancy Rate (%)	Number of posts filled	Vacancy Rate (%)	% variance
Ophthalmology						
MEDICAL OFFICER	2	2	0.00%	2	0.00%	
REGISTRAR	6	5	16.67%	5	16.67%	
SPECIALIST	4	4	0.00%	5	-25.00%	
Total Ophthalmology	12	11	8.33%	12	0.00%	-8.33%
Orthopaedics						
MEDICAL OFFICER	4	0	100.00%	1	75.00%	
REGISTRAR	11	13	-18.18%	12	-9.09%	
SPECIALIST	11	5	54.55%	6	45.45%	
Total Orthopaedics	26	18	30.77%	19	26.92%	-3.85%
Paediatric Surgery						
MEDICAL OFFICER	0	0	0.00%	0	0.00%	
REGISTRAR	1	0	100.00%	0	100.00%	
SPECIALIST	3	1	66.67%	1	66.67%	
Total Paediatric Surgery	4	1	75.00%	1	75.00%	0.00%
Plastic Surgery						
MEDICAL OFFICER	3	2	33.33%	2	33.33%	
REGISTRAR	6	7	-16.67%	5	16.67%	
SPECIALIST	7	0	100.00%	3	57.14%	
Total Plastic Surgery	16	9	43.75%	10	37.50%	-6.25%
Trauma						
MEDICAL OFFICER	8	0	100.00%	0	100.00%	
REGISTRAR	4	0	100.00%	0	100.00%	
SPECIALIST	2	0	100.00%	0	100.00%	
Total Trauma	14	0	100.00%	0	100.00%	0.00%
Urology						
MEDICAL OFFICER	2	2	0.00%	0	100.00%	
REGISTRAR	4	4	0.00%	5	-25.00%	
SPECIALIST	1	1	0.00%	2	-100.00%	
Total Urology	7	7	0.00%	7	0.00%	0.00%

4.1.4 OBSTETRICS GYNAECOLOGY AND PAEDIATRICS

The vacancy rates in the Obstetrics and Gynaecology and Paediatrics Departments are described in Table 4.5. There were very few vacancies in these two Departments. Interestingly, the Obstetrics and Gynaecology had employed more registrars than the number of posts. Chi-square test showed that there were no significant differences in vacancy rates in these two departments between the two years.

Table 4.5 Vacancy rate for doctors in Obstetrics Gynaecology and Paediatrics Units

Departments	Number of posts available	2008		2010		Variance
		Number of posts filled	Vacancy Rate (%)	Number of posts filled	Vacancy Rate (%)	% variance
OBSTETRICS AND GYNAECOLOGY						
MEDICAL OFFICER	12	8	33.33%	4	66.67%	
REGISTRAR	14	19	-35.71%	23	-64.29%	
SPECIALIST	12	7	41.67%	7	41.67%	
Total Obstetrics and Gynaecology	38	34	10.53%	34	10.53%	0.00%
PAEDIATRICS						
MEDICAL OFFICER	4	3	25.00%	1	75.00%	
REGISTRAR	12	12	0.00%	11	8.33%	
SPECIALIST	13	7	46.15%	8	38.46%	
Total Paediatrics	29	22	24.14%	20	31.03%	6.90%

4.1.5 RADIATION SCIENCES

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The vacancy rates in the two Departments are described in Table 4.6. There were very little changes in the vacancy rates. However, it was noted with concern that a significant number of registrar posts remained vacant in Radiology Department. There was no significant difference in vacancy rates between the two years in these two departments (Chi-square test).

Table 4.6 Vacancy rate for doctors in Radiation Sciences

Departments	Number of posts available	2008		2010		Variance
		Number of posts filled	Vacancy Rate (%)	Number of posts filled	Vacancy Rate (%)	% variance
Radiology						
MEDICAL OFFICER	4	1	75.00%	1	75.00%	
REGISTRAR	12	12	0.00%	9	25.00%	
SPECIALIST	8	4	50.00%	3	62.50%	
Total Radiology	24	17	29.17%	13	45.83%	16.67%
Nuclear Medicine						
MEDICAL OFFICER	1	1	0.00%	1	0.00%	
REGISTRAR	4	3	25.00%	2	50.00%	
SPECIALIST	4	1	75.00%	3	25.00%	
Total Nuclear Medicine	9	5	44.44%	6	33.33%	-11.11%

4.1.6 OTHERS

The vacancy rates in Other Departments are described in the Table 4.7. The vacancy rates remained unchanged in these Departments. The Community health and Family practice departments could not fill-in all registrar posts. There was no significant difference in vacancy rate between the two years in these departments (Chi-square test).

Table 4.7 Vacancy rate for doctors in other Departments

Departments	Number of posts available	2008		2010		Variance
		Number of posts filled	Vacancy Rate (%)	Number of posts filled	Vacancy Rate (%)	% variance
Clinical Pharmacology						
MEDICAL OFFICER	2	1	50.00%	0	100.00%	
REGISTRAR	0	0	0.00%	0	0.00%	
SPECIALIST	3	1	66.67%	2	33.33%	
Total Clinical Pharmacology	5	2	60.00%	2	60.00%	0.00%
Community Health						
MEDICAL OFFICER	0	1	0.00%	0	0.00%	
REGISTRAR	4	2	50.00%	2	50.00%	
SPECIALIST	5	2	60.00%	1	80.00%	
Total Community Health	9	5	44.44%	3	66.67%	22.22%
Family Practice						
MEDICAL OFFICER	6	3	50.00%	2	66.67%	
REGISTRAR	4	0	0.00%	0	0.00%	
SPECIALIST	5	3	40.00%	3	40.00%	
Total Family Practice	15	6	60.00%	5	66.67%	6.67%
Accident & Emergency						
MEDICAL OFFICER	18	10	44.44%	10	44.44%	
REGISTRAR	0	0	0.00%	2	0.00%	
SPECIALIST	3	1	66.67%	1	66.67%	
Total Accident & Emergency	21	11	47.62%	13	38.10%	-9.52%

4.2 GENDER

The proportion of female doctors remained unchanged (39%, 2008 and 40%, 2010) (Table 4.8). There was no significant difference in gender between the two years (Chi-square test, p =0.8).

Table 4.8 Gender distribution of doctors in the Hospital

Year	Total number of doctors	Male	Female
2008	290	178 (61%)	112 (39%)
2010	292	176 (60%)	116 (40%)

4.2.1 ANAESTHESIOLOGY AND CRITICAL CARE

The gender distribution of doctors in the Anaesthesiology and Critical Departments are described in Table 4.9. The Anaesthesiology Department employed more female doctors (61%).

Table 4.9 Distribution of Gender in the Anaesthesiology and Critical care Departments

Departments	2008		2010	
	Male	Female	Male	Female
Anaesthesiology				
MEDICAL OFFICER	1	7	1	2
REGISTRAR	5	8	5	12
SPECIALIST	5	2	4	2
Total Anaesthesiology	11 (39%)	17 (61%)	10 (38%)	16 (62%)
ICU				
MEDICAL OFFICER	0	0	0	0
REGISTRAR	0	1	1	0
SPECIALIST	1	1	0	2
Total ICU	1 (33%)	2 (67%)	1 (33%)	2 (67%)

4.2.2 MEDICINE

The gender distribution of doctors in the different Medicine Units is described in Table 4.10. Among all the medicine units, the number of female doctors were increased from 2008 (28, 42%) to 2010 (36, 48%).

Table 4.10 Distribution of Gender in Medicine Department

Departments	2008		2010	
	Male	Female	Male	Female
Internal Medicine				
MEDICAL OFFICER	1	0	7	0
REGISTRAR	17	6	13	11
SPECIALIST	4	3	2	4
Total Internal Medicine	22 (71%)	9 (29%)	22 (59%)	15 (41%)
ARV				
MEDICAL OFFICER	1	1	0	1
REGISTRAR	0	0	0	0
SPECIALIST	0	0	0	0
Total ARV	1 (50%)	1 (50%)	1 (100%)	0
Cardiology				
MEDICAL OFFICER	1	1	1	0
REGISTRAR	0	0	0	0
SPECIALIST	1	0	1	0
Total Cardiology	2 (67%)	1 (33%)	2 (100%)	0
Dermatology				
MEDICAL OFFICER	1	0	0	1
REGISTRAR	0	3	1	3
SPECIALIST	1	2	1	1
Total Dermatology	2 (29%)	5 (71%)	2 (29%)	5 (71%)
Neurology				
MEDICAL OFFICER	0	1	0	1
REGISTRAR	2	2	3	3
SPECIALIST	1	0	1	2
Total Neurology	3 (50%)	3 (50%)	4 (40%)	6 (60%)
Psychiatry				
MEDICAL OFFICER	0	0	0	0
REGISTRAR	7	9	5	7
SPECIALIST	1	0	2	3
Total Psychiatry	8 (47%)	9 (53%)	7 (41%)	10 (59%)

The number of female doctors increased in the Internal Medicine Department from 2008 (29%) to 2010 (41%) mainly due to employment of more female doctors. There were also more female doctors in 2010 in comparison to 2008 in the Neurology and Psychiatry Units. The Psychiatry Unit managed to employ 3 female consultants in 2008, in comparison to none in 2008. However, the ARV

and Cardiology Unit lost the female doctors they employed in 2008. The number of female doctors remained unchanged in the Dermatology Unit.

4.2.3 SURGERY

The gender distribution of doctors in the different Medicine Units is described in Table 4.11. The number of female doctors in all the Surgical Units were very low in 2008 (16, 18%) and declined further in 2010 (14, 15%) in these Units. In some of the Surgical Units, there were no female doctors (such as Paediatric Surgery and Urology).

Table 4.11 Gender distribution of doctors in the Surgery Department

Departments	2008		2010	
	Male	Female	Male	Female
General Surgery				
MEDICAL OFFICER	1	0	1	1
REGISTRAR	7	4	10	3
SPECIALIST	4	0	4	1
Total General Surgery	12 (75%)	4 (25%)	15 (75%)	5 (25%)
Cardio-thoracic				
MEDIAL OFFICER	2	0	0	1
REGISTRAR	4	0	4	0
SPECIALIST	2	0	2	0
Total Cardio-thoracic	8 (100%)	0 (0%)	6 (86%)	1 (14%)
ENT				
MEDICAL OFFICER	1	0	0	1
REGISTRAR	1	3	1	3
SPECIALIST	0	1	1	1
Total ENT	4 (50%)	4 (50%)	4 (67%)	2 (33%)
Neurosurgery				
MEDICAL OFFICER	5	0	3	0
REGISTRAR	3	0	4	1
SPECIALIST	3	1	3	0
Total Neurosurgery	11 (92%)	1 (8%)	10 (91%)	1 (9%)

Table 4.11 Gender distribution of doctors in the Surgery Department (contd.)

Ophthalmology				
MEDICAL OFFICER	2	0	2	0
REGISTRAR	2	3	5	1
SPECIALIST	3	1	3	1
Total Ophthalmology	7 (91%)	4 (9%)	10 (83%)	2 (7%)
Orthopaedics				
MEDICAL OFFICER	0	0	1	0
REGISTRAR	12	1	11	1
SPECIALIST	5	0	6	0
Total Orthopaedics	17 (94%)	1 (6%)	18 (95%)	1 (5%)
Paediatric Surgery				
MEDICAL OFFICER	0	0	0	0
REGISTRAR	0	0	0	0
SPECIALIST	1	0	1	0
Total Paediatric Surgery	1 (100%)	0 (0%)	1 (100%)	0 (0%)
Plastic Surgery				
MEDICAL OFFICER	1	1	1	1
REGISTRAR	6	1	4	1
SPECIALIST	0	0	3	0
Total Plastic Surgery	7 (78%)	2 (22%)	8 (80%)	2 (20%)
Urology				
MEDICAL OFFICER	2	0	0	0
REGISTRAR	4	0	5	0
SPECIALIST	1	0	0	0
Total Urology	7 (100%)	0 (0%)	7 (100%)	0 (0%)

4.2.4 OBSTETRICS GYNAECOLOGY AND PAEDIATRICS

The gender distribution of doctors in these two Departments is described in Table 4.12. Chi-square test showed that the number of female doctors did not change in these two departments from 2008 to 2010.

Table 4.12 Gender distribution of doctors in Obstetrics Gynaecology and Paediatrics Departments

Departments	2008		2010	
	Male	Female	Male	Female
OBSTETRICS AND GYNAECOLOGY				
MEDICAL OFFICER	5	3	2	2
REGISTRAR	15	4	17	6
SPECIALIST	5	2	5	2
Total Obstetrics and Gynaecology	25 (74%)	9 (26%)	24 (71%)	10 (29%)
PAEDIATRICS				
MEDICAL OFFICER	1	2	1	0
REGISTRAR	4	8	3	8
SPECIALIST	4	3	5	4
Total Paediatrics	9 (41%)	13 (59%)	8 (40%)	12 (60%)

4.2.5 RADIATION SCIENCES

The gender distribution of doctors in the Radiology and Nuclear Medicine Departments is described in Table 4.13. The majority of doctors employed in the Radiology Department are female, whereas the number of female doctors in the Nuclear Medicine Department increased by 10%, although the increase is not statistically significant.

Table 4.13 Gender distribution of doctors in Radiation Sciences

Departments	2008		2010	
	Male	Female	Male	Female
Radiology				
MEDICAL OFFICER	0	1	0	1
REGISTRAR	4	8	3	6
SPECIALIST	1	3	0	3
Total Radiology	5 (29%)	12 (71%)	3 (27%)	10 (73%)
Nuclear Medicine				
MEDICAL OFFICER	0	1	0	1
REGISTRAR	3	0	1	1
SPECIALIST	0	1	2	1
Total Nuclear Medicine	3 (60%)	2 (40%)	3 (50%)	3 (50%)

4.2.6 OTHERS

The gender distribution of doctors in other Departments is described in Table 4.14. The gender ratio remained unchanged or changed slightly in these 4 Departments, which is not statistically significant (Chi-square test).

Table 4.14 Gender distribution of doctors in other Departments

Departments	2008		2010	
Clinical Pharmacology				
MEDIAL OFFICER	0	1	0	0
REGISTRAR	0	0	0	0
SPECIALIST	1	0	1	1
Total Clinical Pharmacology	1 (50%)	1 (50%)	1 (50%)	1 (50%)
Community Health				
MEDICAL OFFICER	0	1	0	0
REGISTRAR	0	2	0	2
SPECIALIST	2	0	1	0
Total Community Health	2 (40%)	3 (60%)	1 (33%)	2 (67%)
Family Practice				
MEDICAL OFFICER	1	2	1	1
REGISTRAR	0	0	0	0
SPECIALIST	3	0	2	1
Total Family Practice	4 (67%)	2 (33%)	3 (67%)	2 (33%)
Accident & Emergency				
MEDICAL OFFICER	3	7	2	8
REGISTRAR	0	0	0	2
SPECIALIST	3	1	1	0
Total Accident & Emergency	6 (43%)	8 (57%)	3 (23%)	10 (77%)

4.3 ETHNICITY

The ethnicity of the doctors is described in Table 4.15. The proportion of Black (B) and Coloured (C) doctors increased slightly from 2008 to 2010 whereas the proportion of White (W) and Indian (I) doctors decreased slightly, but these differences are not statistically significant (Chi-square test, p =0.69).

Table 4.15 Ethnicity of doctors

YEAR	ETHNICITY			
	W	A	C	I
2008	38 (13.1%)	229 (79%)	1 (0.3%)	22 (7.6%)
2010	31 (10.7%)	236 (81.1%)	3 (1%)	21 (7.2%)

4.3.1 ANAESTHESIOLOGY AND CRITICAL CARE

The ethnic distribution of doctors in the two departments is described in Table 4.16. There were no White and Coloured doctors employed in these two departments. The majority of them were Blacks with few Indian doctors.

Table 4.16 Ethnicity of doctors in the Anaesthesiology and Critical care Departments

Departments	2008				2010			
	W	B	C	I	W	B	C	I
Anaesthesiology								
MEDICAL OFFICER	0	8	0	0	0	3	0	0
REGISTRAR	0	13	0	0	0	17	0	0
SPECIALIST	0	5	0	2	0	4	0	2
Total Anaesthesiology	0	26(2%)	0	2(8%)	0	24(93%)	0	2 (7%)
Critical care								
MEDICAL OFFICER	0	0	0	0	0	0	0	0
REGISTRAR	0	1	0	0	0	1	0	0
SPECIALIST	0	2	0	0	0	2	0	0
Total Critical care	0	3 (100%)	0	0	0	3 (100%)	0	0

4.3.2 MEDICINE

The ethnicity of doctors in Medicine Departments is described in Table 4.17. The majority of the doctors were Black with few Indian, White and Coloured doctors in these Units. Chi-square test showed no significant change in ethnicity of doctors from 2008 to 2010 ($p = 0.9$).

Table 4.17 Ethnicity of doctors in different units in the Medicine Department

	W	B	C	I
2008	2(3%)	57(85%)	1(1%)	7(10%)
2010	1(1%)	65(88%)	2(3%)	6(8%)

The ethnicity of doctors in the different units of the Medicine Department is described in Table 4.18. The majority of doctors in these Units were Black. The Psychiatry and Dermatology Units employ few Indian doctors whereas Internal Medicine Unit employed one white doctor.

Table 4.18 Ethnicity of doctors in different units of the Medicine Department

Departments	**2008**				**2010**			
	W	**B**	**C**	**I**	**W**	**B**	**C**	**I**
Internal Medicine								
MEDICAL OFFICER	0	1	0	0	0	7	0	0
REGISTRAR	1	23	0	0	1	23	0	0
SPECIALIST	0	5	0	2	0	4	0	2
Total Internal medicine	1(3%)	29(91%)	0	2(6%)	1(3%)	34(92%)	0	2(5%)
ARV								
MEDICAL OFFICER	0	2	0	0	0	1	0	0
REGISTRAR	0	0	0	0	0	0	0	0
SPECIALIST	0	0	0	0	0	0	0	0
Total ARV	0	2(100%)	0	0	0	1(100%)	0	0
Cardiology								
MEDICAL OFFICER	0	2	0	0	0	1	0	0
REGISTRAR	0	0	0	0	0	0	0	0
SPECIALIST	0	1	0	0	0	1	0	0
Total Cardiology	0	3(100%)	0	0	0	2(100%)	0	0
Dermatology								
MEDICAL OFFICER	0	0	0	1	0	1	0	0
REGISTRAR	1	2	0	0	0	3	0	1
SPECIALIST	0	3	0	0	0	2	0	0
Total Dermatology	1(14%)	5(72%)	0	1(14%)	0	6(86%)	0	1(14%)
Neurology								
MEDICAL OFFICER	0	1	0	0	0	1	0	0
REGISTRAR	0	4	0	0	0	5	1	0
SPECIALIST	0	1	0	0	0	3	0	0
Total Neurology	0	6(100%)	0	0	0	9(90%)	1(10%)	0

Table 4.18 Ethnicity of doctors in different units of the Medicine Department (contd.)

Psychiatry								
MEDICAL OFFICER	0	0	0	0	0	0	0	0
REGISTRAR	0	11	1	4	0	8	1	3
SPECIALIST	0	1	0	0	0	5	0	0
Total Psychiatry	0	12(71%)	1(6%)	4(24%)	0	13(76%)	1(6%)	3(18%)

4.3.3 SURGERY

The ethnicity of doctors in the Surgery Department is described in Table 4.19. In comparison to Medicine Department, the Surgery Department employed more White and Indian doctors. But there were no Coloured doctors in these Units. Chi-square test showed no significant change in ethnicity of doctors from 2008 to 2010 (p =0.85).

Table 4.19 Ethnicity of doctors in the Surgery Department

	W	**B**	**C**	**I**
2008	20(22%)	65(72%)	0	5(6%)
2010	18(93%)	69(74%)	0	6(6%)

The ethnicity of doctors in the different units in Surgery Department is described in Table 4.20. The majority of doctors in these Units were black. The Plastic Surgery is the only Unit, where all the specialists were White. In all the other Units, the majority of doctors were Black. Ophthalmology Unit managed to attract more black registrars in 2010.

Table 4.20 Ethnicity of doctors in the different units of Surgery Department

Departments	2008				2010			
	W	B	C	I	W	B	C	I
General Surgery								
MEDICAL OFFICER	0	1	0	0	0	2	0	0
REGISTRAR	1	10	0	0	0	13	0	0
SPECIALIST	0	3	0	1	0	4	0	1
Total General Surgery	1(6%)	14(88%)	0	1(6%)	0	19(95%)	0	1(5%)
Cardio-thoracic								
MEDIAL OFFICER	0	2	0	0	0	1	0	0
REGISTRAR	0	3	0	1	0	3	0	1
SPECIALIST	0	2	0	0	0	2	0	0
Total Cardio-thoracic	0	7(88%)	0	1(12%)	0	6(86%)	0	1(14%)
ENT								
MEDICAL OFFICER	0	2	0	1	0	0	0	1
REGISTRAR	1	3	0	0	0	5	0	0
SPECIALIST	1	0	0	0	0	0	0	0
Total ENT	2(25%)	5(63%)	0	1(12%)	0	5(83%)	0	1(17%)
Neurosurgery								
MEDICAL OFFICER	2	3	0	0	1	2	1	0
REGISTRAR	0	3	0	0	0	4	0	0
SPECIALIST	0	4	0	0	0	3	0	0
Total Neurosurgery	2(17%)	10(83%)	0	0	1(9%)	9(82%)	0	1(9%)
Ophthalmology								
MEDICAL OFFICER	2	0	0	0	1	1	0	0
REGISTRAR	3	0	0	2	1	2	0	2
SPECIALIST	2	2	0	0	3	2	0	0
Total Ophthalmology	7(64%)	2(18%)	0	2(18%)	7(58%)	3(25%)	0	2(17%)
Orthopaedics								
MEDICAL OFFICER	0	0	0	0	0	1	0	0
REGISTRAR	0	13	0	0	0	12	0	0
SPECIALIST	1	4	0	0	1	5	0	0
Total Orthopaedics	1(6%)	17(94%)	0	0	2(11%)	17(89%)	0	0
Paediatric Surgery								
MEDICAL OFFICER	0	0	0	0	0	0	0	0
REGISTRAR	0	0	0	0	0	0	0	0
SPECIALIST	1	0	0	0	1	0	0	0
Total Paediatric Surgery	1(100%)	0	0	0	1(100%)	0	0	0

Table 4.20 Ethnicity of doctors in the different units of Surgery Department (contd.)

Plastic Surgery								
MEDICAL OFFICER	1	1	0	0	2	0	0	0
REGISTRAR	5	2	0	0	3	2	0	0
SPECIALIST	0	0	0	0	2	0	0	0
Total Plastic Surgery	6(67%)	3(33%)	0	0	7(70%)	3(30%)	0	0
Urology								
MEDICAL OFFICER	0	2	0	0	0	0	0	0
REGISTRAR	0	4	0	0	0	5	0	0
SPECIALIST	0	1	0	0	0	2	0	0
Total Urology	0	7(100%)	0	0	0	7(100%)	0	0

4.3.4 OBSTETRICS GYNAECOLOGY AND PAEDIATRICS

The ethnicity of doctors in the Obstetrics and Gynaecology and Paediatric Departments is described in Table 4.21. All the specialists in the Obstetrics and Gynaecology Department are Black in comparison to the Paediatrics Department which has both White and Black specialists. Chi-square test showed no significant changes in ethnicity of doctors from 2008 to 2010 in Obstetrics and Gynaecology ($p = 0.8$) and Paediatric ($p = 0.9$) Departments.

Table 4.21 Ethnicity of doctors working in Obstetrics Gynaecology and Paediatrics Departments

Departments	**2008**				**2010**			
	W	**B**	**C**	**I**	**W**	**B**	**C**	**I**
OBSTETRICS AND GYNAECOLOGY								
MEDICAL OFFICER	1	7	0	0	1	3	0	0
REGISTRAR	1	17	0	1	0	22	0	1
SPECIALIST	0	7	0	0	0	7	0	0
Total Obstetrics and Gynaecology	2(6%)	31(91%)	0	1(3%)	1(3%)	32(94%)	0	1(3%)
PAEDIATRICS								
MEDICAL OFFICER	0	3	0	0	0	1	0	0
REGISTRAR	0	12	0	0	0	11	0	0
SPECIALIST	3	3	0	1	3	5	0	0
Total Paediatrics	3(15%)	18(81%)	0	1(5%)	3(13%)	17(77%)	0	0

4.3.5 RADIATION SCIENCES

The ethnicity of doctors in the Radiation Sciences is described in Table 4.22. There are no Indian or Coloured doctors in these two Departments. Chi-square test showed no significant changes in ethnicity of doctors from 2008 to 2010 in Radiology (p = 0.85) and Nuclear Medicine (p =0.94) Departments.

Table 4.22 Ethnicity of doctors working in Radiation Sciences

Departments	2008				2010			
	W	B	C	I	W	B	C	I
Radiology								
MEDICAL OFFICER	0	1	0	0	0	1	0	0
REGISTRAR	3	6	0	3	1	4	0	4
SPECIALIST	1	3	0	0	2	1	0	0
Total Radiology	4(24%)	10(59%)	0	3(18%)	3(23%)	6(46%)	0	4(31%)
Nuclear Medicine								
MEDICAL OFFICER	1	0	0	0	1	0	0	0
REGISTRAR	1	1	0	0	1	1	0	0
SPECIALIST	1	1	0	0	1	2	0	0
Total Nuclear Medicine	2(40%)	2(40%)	0	1(10%)	3(50%)	3(50%)	0	0

4.3.6 OTHERS

The ethnicity of doctors in other departments is described in Table 4.23. There are no Indian or Coloured registrars and specialists in these Departments. Clinical Pharmacology Department was staffed only by white specialists. Chi-square test showed no significant changes in ethnicity of doctors from 2008 to 2010 in these four departments.

Table 4.23 Ethnicity of doctors working in other departments

Departments	2008				2010			
	W	B	C	I	W	B	C	I
Clinical Pharmacology								
MEDIAL OFFICER	1	0	0	0	0	0	0	0
REGISTRAR	0	0	0	0	0	0	0	0
SPECIALIST	1	0	0	0	2	0	0	0
Total Clinical Pharmacology	2(100%)	0	0	0	2(100%)	0	0	0
Community Health								
MEDICAL OFFICER	0	1	0	0	0	0	0	0
REGISTRAR	0	2	0	0	0	2	0	0
SPECIALIST	2	0	0	0	1	0	0	0
Total Community Health	2(40%)	3(60%)	0	0	1(33%)	2(67%)	0	0
Family Practice								
MEDICAL OFFICER	0	2	0	1	0	1	0	1
REGISTRAR	0	0	0	0	0	0	0	0
SPECIALIST	0	3	0	0	0	3	0	0
Total Family Practice	0	5(83%)	0	1(17%)	0	4(80%)		1(20%)
Accident & Emergency								
MEDICAL OFFICER	0	8	0	2	2	6	0	2
REGISTRAR	0	0	0	0	0	2	0	0
SPECIALIST	0	1	0	0	0	1	0	0
Total Accident & Emergency	0	9(82%)	0	2(18%)	2(16%)	9(68%)	0	2(16%)

4.4 AGE

Age of the doctors is described in this Section.

4.4.1 ANAESTHESIOLOGY AND CRITICAL CARE

Age distribution of the doctors in the Anaesthesiology and Critical care Units is described in Table 4.24. There were no significant changes in the mean age of the doctors working in these two departments, except medical officers working in the Anaesthesiology Department, whose mean age increased significantly from 2008 to 2010 (Mann Whitney's U test, p = 004).

Table 4.24 Age of doctors working in the Anaesthesiology and Critical care

Departments	2008*		2010*	
	Mean ± SD	Range	Mean ± SD	Range
Anaesthesiology				
MEDICAL OFFICER	38 ± 9	28-51	47 ± 10	36- 53
REGISTRAR	35 ± 5	28- 47	36 ± 5	30- 45
SPECIALIST	46 ± 8	36-52	49 ± 9	36-64
Critical care				
MEDICAL OFFICER	-	-	-	-
REGISTRAR	41	-	36	-
SPECIALIST	45	45	45	43-47

*Standard deviation is not calculated when n is small

4.4.2 MEDICINE

Age distribution of the doctors in the different units in Medicine is described in Table 4.24. There were no significant changes in the mean age of the doctors working in different units in Medicine.

Table 4.25 Age of doctors working in Medicine by posts

Departments	2008*		2010*	
	Mean ± SD	Range	Mean ± SD	Range
Internal Medicine				
MEDICAL OFFICER	46	37-54	44 ± 10	34-63
REGISTRAR	38 ± 8	26-52	39 ± 9	28- 54
SPECIALIST	52 ± 9	34-66	50 ± 8	39-62
ARV				
MEDICAL OFFICER	44.5	39-50	58	
REGISTRAR	-	-	-	-
SPECIALIST	-			-
Cardiology				
MEDICAL OFFICER	44		46	
REGISTRAR	-	-	-	-
SPECIALIST	46	44-48	48	46-50
Dermatology				
MEDICAL OFFICER	30		33	
REGISTRAR	34	31-40	35 ± 5	31-42
SPECIALIST	42	38-47	42	40-44
Neurology				
MEDICAL OFFICER	27	-	49	
REGISTRAR	43 ± 7	36-52		37
SPECIALIST	44.5	39-50	37± 8	28- 47
Psychiatry				
MEDICAL OFFICER	-			
REGISTRAR	39 ± 8	27 - 51	40 ± 7	29- 54
SPECIALIST	55 ± 17	39-73	48 ± 8	34 - 55

*Standard deviation is not calculated when n is small

4.4.3 SURGERY

Age distributions of the doctors in the different Units in the Surgery Department are described in Table 4.26. There were no significant changes in the mean age of the doctors working in different units in Surgery.

Table 4.26 Age of doctors working in Surgery

Departments	2008*		2010*	
General Surgery	**Mean ± SD**	**Range**	**Mean ± SD**	**Range**
MEDICAL OFFICER	48	38-58	50 ± 9	43- 60
REGISTRAR	35 ± 7	26- 47	33 ± 5	28 -43
SPECIALIST	55 ± 8	42 - 67	52 ± 8	40 - 63
Cardio-thoracic				
MEDIAL OFFICER	43	38-47	49	35
REGISTRAR	34 ± 11	27-49	36 ± 10	29 - 51
SPECIALIST	38 ± 2	36-40	40 ± 2	38 - 42
ENT				
MEDICAL OFFICER	40 ± 12	26 - 55	57	-
REGISTRAR	41 ± 6	34 -49	34 ± 6	28 - 41
SPECIALIST	59 ± 18	43 - 79	59 ± 13	46 -81
Neurosurgery				
MEDICAL OFFICER	37 ± 12	26 - 58	42 ± 16	30 - 60
REGISTRAR	32 ± 2	30 - 34	35 ± 4	29 -39
SPECIALIST	43 ± 8	37 - 55	38 ± 6	32 - 43
Ophthalmology				
MEDICAL OFFICER	35	-	35	-
REGISTRAR	30 ± 3	28 -35	32 ± 3	30 -36
SPECIALIST	46 ± 14	32-65	48 ± 14	34-67
Orthopaedics				
MEDICAL OFFICER				
REGISTRAR	41 ± 6	31 -51	43 ± 5	33 -53
SPECIALIST	51 ± 7	43 -62	53 ± 8	45 -64
Paediatric Surgery				
MEDICAL OFFICER	-	-	-	-
REGISTRAR	-	-	-	-
SPECIALIST	41	-	43	-
Plastic Surgery				
MEDICAL OFFICER	48	39 – 57	46 ± 18	33 -59
REGISTRAR	36 ± 6	30 -42	36 ± 6	31 -44
SPECIALIST	55 ± 12	43 - 69	50 ± 13	32 -71
Urology				
MEDICAL OFFICER	38	35 - 40	-	-
REGISTRAR	33 ± 5	29 -40	36 ± 6	31 -42
SPECIALIST	54 ± 11	42- 64	52 ± 13	37- 66

*Standard deviation is not calculated when n is small

4.4.4 OBSTETRICS GYNAECOLOGY AND PAEDIATRICS

Age distributions of the doctors in the Obstetrics and Gynaecology and Paediatrics Units are described in Table 4.27. There were no significant changes in the mean age of the doctors working in these two Departments.

Table 4.27 Age of doctors working in Obstetrics Gynaecology and Paediatrics

Departments	2008		2010	
Obstetrics and Gynaecology	Mean ± SD	Range	Mean ± SD	Range
MEDICAL OFFICER	41 ± 10	28 - 67	44 ± 14	30 - 69
REGISTRAR	38 ± 5	26 -46	38 ± 5	28 - 47
SPECIALIST	47 ± 6	39 - 60	46 ± 6	35 -53
Paediatrics				
MEDICAL OFFICER	32 ± 5	29 -38	50	-
REGISTRAR	34 ± 6	27 - 48	34 ± 6	28 -45
SPECIALIST	51 ± 10	34 - 78	52 ± 11	32 - 80

4.4.5 RADIATION SCIENCES

Age distributions of the doctors in the Radiology and Nuclear Medicine Departments are described in Table 4.28. There were no significant changes in the mean age of the doctors working in these two Departments.

Table 4.28 Age of doctors working in Radiation Sciences

Departments	2008*		2010*	
Radiology	Mean ± SD	Range	Mean ± SD	Range
MEDICAL OFFICER*	50	34 - 65	48	29 - 67
REGISTRAR	32 ± 12	26 -42	32 ± 12	27 -43
SPECIALIST	46 ± 12	37 -61	46 ± 12	33 - 63
Nuclear Medicine				
MEDICAL OFFICER*	58	54 - 62	60	56- 64
REGISTRAR*	31	30 -33	31	29 - 33
SPECIALIST*	36		42	32 -56

*Standard deviation is not calculated when n is small

4.4.6 OTHERS

Age distributions of the doctors in the Clinical Pharmacology, Community Health Family Practice and Accident & Emergency Obstetrics and Gynaecology and Paediatrics Units are described in Table 4.29. There were no significant changes in the mean age of the doctors working in these Departments.

Table 4.29 Age of doctors working in Other Departments by Posts

Departments	2008*		2010*	
	Mean ± SD	Range	Mean ± SD	Range
Clinical Pharmacology				
MEDIAL OFFICER*	43		-	-
REGISTRAR	-	-	-	-
SPECIALIST*	49	46 - 52	50	45 - 54
Community Health				
MEDICAL OFFICER	38		-	-
REGISTRAR	41	39 - 42	41	40 - 41
SPECIALIST	55	53 - 56	58	
Family Practice				
MEDICAL OFFICER	36 ± 8	29 - 51	39 ± 8	31 -57
REGISTRAR	-	-	-	-
SPECIALIST*	45	43 - 49	52	51 -52
Accident & Emergency				
MEDICAL OFFICER	42 ± 10	27 -71	43 ± 10	29 - 73
REGISTRAR	-	-	34	32 -36
SPECIALIST	44		56	

*Standard deviation is not calculated when n is small

4.5 NATIONALITY

The nationality of doctors working in the different units is described in the Table 4.30. The majority of doctors were South Africans which increased to 92% in 2010.

Table 4.30 Nationality of doctors

Year	South African	Non South African
2008	261 (90%)	29 (10%)
2010	268 (92%)	24 (8%)

4.5.1 ANAESTHESIOLOGY AND CRITICAL CARE

Nationality of doctors working in the Anaesthesiology and Critical care Departments are described in Table 4.31. The majority of them were South Africans.

Table 4.31 Nationality of doctors working in Anaesthesiology and Critical Care

	2008		2010	
	South African	Non South African	South African	Non South African
Anaesthesiology				
MEDICAL OFFICER	8	0	3	0
REGISTRAR	13	0	17	0
SPECIALIST	5	2	4	2
Total Anaesthesiology	26 (93%)	2 (7%)	24 (92%)	2 (8%)
Critical care				
MEDICAL OFFICER	0	0	0	0
REGISTRAR	2	0	1	0
SPECIALIST	1	0	2	0
Total Critical care	3 (100%)	0	3 (100%)	0

4.5.2 MEDICINE

The nationality of doctors working in the different Units of the Medicine Department is described in Table 4.32. The majority of doctors were South Africans (2008: 61 (91%); 2010: 69 (93%). There were few non South Africans in the Internal Medicine Units.

Table 4.32 Nationality of doctors working in the Medicine Department

	2008		2010	
	South African	Non South African	South African	Non South African
Internal Medicine				
MEDICAL OFFICER	0	1	7	1
REGISTRAR	23	1	22	1
SPECIALIST	7	0	4	2
Total Internal Medicine	30(94%)	2(6%)	33(89%)	4(11%)
ARV				
MEDICAL OFFICER	2	0	1	0
REGISTRAR	0	0	0	0
SPECIALIST	0	0	0	0
Total ARV	2(100%)	0	1(100%)	0
Cardiology				
MEDICAL OFFICER	1	0	1	0
REGISTRAR	0	0	0	0
SPECIALIST	1	1	1	0
Total Cardiology	2(67%)	1(33%)	2(100%)	0
Dermatology				
MEDICAL OFFICER	0	1	2	0
REGISTRAR	2	0	3	1
SPECIALIST	3	1	1	0
Total Dermatology	5(71%)	2(29%)	6(86%)	1(14%)
Neurology				
MEDICAL OFFICER	1	0	1	0
REGISTRAR	3	1	5	1
SPECIALIST	1	0	3	0
Total Neurology	5(83%)	1(17%)	10(100%)	0
Psychiatry				
MEDICAL OFFICER	0	0	0	0
REGISTRAR	15	0	12	0
SPECIALIST	2	0	5	0
Total Psychiatry	17(100%)	0	17(100%)	0

4.5.3 SURGERY

The nationality of doctors working in the Surgical Department is described in Table 4.33. The majority of doctors were South Africans (2008: 87 (97%); 2010: 89 (96%).

Table 4.33 Nationality of doctors working in the Surgery Department

	2008		2010	
	South African	Non South African	South African	Non South African
General Surgery				
MEDICAL OFFICER	1	0	2	0
REGISTRAR	11	0	13	0
SPECIALIST	4	0	5	0
Total General Surgery	16(100%)	0	19(95%)	1(5%)
Cardio-thoracic				
MEDIAL OFFICER	2	0	1	0
REGISTRAR	4	0	4	0
SPECIALIST	2	0	2	0
Total Cardio-thoracic	8(100%)	0	7(100%)	0
ENT				
MEDICAL OFFICER	2	1	0	1
REGISTRAR	4	0	5	0
SPECIALIST	1	0	0	0
Total ENT	7(88%)	1(12%)	5(83%)	1(17%)
Neurosurgery				
MEDICAL OFFICER	5	0	3	0
REGISTRAR	3	0	5	0
SPECIALIST	4	0	3	0
Total Neurosurgery	12(100%)	0	11(100%)	0
Ophthalmology				
MEDICAL OFFICER	2	0	2	0
REGISTRAR	5	0	5	0
SPECIALIST	4	0	5	0
Total Ophthalmology	11(100%)	0	12(100%)	0
Orthopaedics				
MEDICAL OFFICER	0	0	1	0
REGISTRAR	13	0	12	0
SPECIALIST	4	1	6	0
Total Orthopaedics	17(94%)	1(6%)	19(100%)	0
Paediatric Surgery				
MEDICAL OFFICER	1	0	0	0
REGISTRAR	0	0	0	0
SPECIALIST	0	0	1	0
Total Paediatric Surgery	1(100%)	0	1(100%)	0

Table 4.33 Nationality of doctors working in the Surgery Department (contd.)

Plastic Surgery				
MEDICAL OFFICER	1	1	1	1
REGISTRAR	7	0	5	0
SPECIALIST	0	0	3	0
Total Plastic Surgery	8(89%)	1	9(90%)	1(10%)
Urology				
MEDICAL OFFICER	2	0	0	0
REGISTRAR	4	0	4	1
SPECIALIST	1	0	2	0
Total Urology	7(100%)	0	6(86%)	1(14%)

4.5.4 OBSTETRICS GYNAECOLOGY AND PAEDIATRICS

The nationality of doctors working in the Obstetrics and Gynaecology and Paediatrics Departments is described in Table 4.34. The majority of doctors were South Africans in both departments.

Table 4.34 Nationality of doctors working in Obstetrics Gynaecology and Paediatrics Departments

	2008		2010	
	South African	Non South African	South African	Non South African
OBSTETRICS AND GYNAECOLOGY				
MEDICAL OFFICER	4	0	4	0
REGISTRAR	21	2	20	3
SPECIALIST	7	0	7	0
Total Obstetrics and Gynaecology	32(94%)	2(6%)	31(91%)	3(7%)
PAEDIATRICS				
MEDICAL OFFICER	3	0	1	0
REGISTRAR	11	1	10	1
SPECIALIST	7	0	8	0
Total Paediatrics	21(95%)	1(5%)	19(95%)	1(5%)

4.5.5 RADIATION SCIENCES

The nationality of doctors working in the Radiation Sciences is described in Table 4.35. The majority of doctors were South Africans in both departments.

Table 4.35 Nationality of doctors working in Radiation Sciences by Posts

	2008		2010	
	South African	Non South African	South African	Non South African
Radiology				
MEDICAL OFFICER	1	0	1	0
REGISTRAR	11	1	7	1
SPECIALIST	4	0	2	2
Total Radiology	16	1	10	3
Nuclear Medicine				
MEDICAL OFFICER	0	1	1	0
REGISTRAR	3	0	2	0
SPECIALIST	1	0	3	0
Total Nuclear Medicine	4	1	6	0

4.5.6 OTHERS

The nationality of doctors working in other department is described in Table 4.36. The majority of doctors were South Africans in these departments except Clinical Pharmacology.

Table 4.36 Nationality of doctors working in other Departments

	2008		2010	
	South African	Non South African	South African	Non South African
Clinical Pharmacology				
MEDIAL OFFICER	0	1	0	0
REGISTRAR	0	0	0	0
SPECIALIST	1	0	1	1
Total Clinical Pharmacology	1	1	1	1
Community Health				
MEDICAL OFFICER	1	0	0	0
REGISTRAR	2	0	2	0
SPECIALIST	2	0	1	0
Total Community Health	5	0	3	0
Family Practice				
MEDICAL OFFICER	1	2	0	2
REGISTRAR	0	0	0	0
SPECIALIST	2	1	2	1
Total Family Practice	3	3	2	3
Accident & Emergency				
MEDICAL OFFICER	7	3	8	2
REGISTRAR	0	0	2	0
SPECIALIST	1	0	1	0
Total Accident and Emergency	8	3	11	2

CHAPTER 5
DISCUSSION

In this chapter, the results obtained from the analysis of the data were discussed and compared with those from other published studies.

5.1 INTRODUCTION

This study was done in order to compare the effect that Occupation Specific Dispensation has had on the vacancy rate of doctors working at Dr George Mukhari Hospital between 2008 (before OSD) and 2010 (after OSD) and to describe their profile. No studies had been done in this regard in South Africa.

5.2 STUDY POPULATION

The study population consisted of 452 posts of medical doctors working at the Hospital excluding interns, and community service doctors. They were excluded as they did not have a choice in where they were placed or where they wanted to do their training.

5.3 THE VACANCY RATE FOR MEDICAL DOCTORS

The study showed that there were no significant changes in the vacancy rates before and after the introduction of OSD. In 2008 the total vacancy rate was 35.8% and which decreased slightly in 2010 (35.4%). The study found that in spite of introduction of OSD, vacancy rates in most of the departments remained unchanged, while there were small increases or decreases in others (Table 5.1).

Table 5.1 Vacancy rate in different specialities

Vacancy rate		
Decreased	Unchanged	Increased
Medicine (Internal medicine, Cardiology, Neurology), Surgery (General Surgery, Ophthalmology, Orthopaedics, Plastic Surgery) Nuclear medicine, Accident and Emergency	Critical care Medicine (Dermatology, Psychiatry, Surgery (Paediatric Surgery, Trauma, Urology) Obstetrics and Gynaecology, Clinical Pharmacology	Anaesthesiology Medicine (ARV), Surgery (Cardio-thoracic, ENT, Neurosurgery) Paediatrics Radiology Community Health, Family Practice

Specialist posts

A number of specialist posts remained vacant in some of the critical departments such as Obstetrics and Gynaecology, Internal Medicine, Radiology lost their specialists (Table 5.2). Alarmingly, ENT lost all its specialists.

Table 5.2 Vacancy rate for specialist posts in different specialities

Vacancy rate		
Decreased	Unchanged	Increased
Medicine (Neurology, Psychiatry)	Medicine (Cardiology,	Anaesthesiology Medicine (Internal medicine, Dermatology)
Surgery (General Surgery, Ophthalmology, Orthopaedics, Plastic Surgery, Urology)	Surgery (Cardio-thoracic, Paediatric Surgery, Trauma,)	Surgery (ENT, Neurosurgery)
Paediatrics Clinical Pharmacology Nuclear medicine,	Obstetrics and Gynaecology, Family Practice Accident and Emergency	Radiology Community Health,

Registrar

Most of the critical departments managed to fill-in their posts except Paediatrics, which is of concern (Table 5.3).

Table 5.3 Vacancy rate for registrar posts in different specialities

Vacancy rate		
Decreased	Unchanged	Increased
Anaesthesiology	Critical care	
Medicine (Dermatology, Neurology)	Medicine (Internal medicine,	Medicine (Psychiatry)
Surgery (General Surgery, ENT, Neurosurgery, Urology)	Surgery (Cardio-thoracic, Ophthalmology, Orthopaedics, Paediatric Surgery, Trauma,)	Surgery (Plastic Surgery)
Obstetrics and Gynaecology,	Community Health,	Paediatrics
Accident and Emergency	Family Practice	Radiology, Nuclear medicine

Medical officer

Most of the critical departments managed to fill-in their posts (Table 5.4).

Table 5.4 Vacancy rate for medical officer posts in different specialities

Vacancy rate		
Decreased	Unchanged	Increased
	Critical care	Anaesthesiology
Medicine (Internal medicine,	Medicine (Dermatology, Neurology, Psychiatry)	Medicine (ARV, Cardiology)
Surgery (General Surgery, Orthopaedics,	Surgery (Ophthalmology, Paediatric Surgery, Plastic Surgery, Trauma,)	Surgery (Cardio-thoracic, ENT, Neurosurgery, Urology)
Obstetrics and Gynaecology,	Radiology, Nuclear medicine,	Clinical Pharmacology
Paediatrics,		Community Health,
	Accident and Emergency	Family Practice

The above tables demonstrated that the OSD had marginal impacts on the number of vacant posts. Discussion with the Human resource department of the Hospital revealed that, a number of these vacant posts were unfunded. As a result of this, the clinical departments did not have funds to fill-in these vacant posts (personal communication). This implies that the Hospital had been allocated funds to pay additional money to the doctors to cover the increase in costs due to OSD. But no additional fund was provided to fill-in the previously unfunded posts. Therefore, these clinical departments could not fill in these posts. In this setting, one may ask the question if it would not have been better to increase the funding and keep salaries the same, thereby increasing the number of doctors and lessening the stress and long hours that people are forced to work under the present circumstances. In other words, if OSD made an overall increase of their salary by 30%, would the money have been spent better by keeping salaries static and increasing the number of doctors by 30%? However, if doctors now earn a market related salary (similar to private sector), they should be expected to work harder and spend more time in public hospital and stop remunerated work outside public service (RWOPS).

There are a number of other factors that attract doctors to public service such as the academic environment (Konrad, et al (1999). This Hospital is an academic hospital. Therefore, it would be interesting to compare a vacancy rate of doctors in a non-academic tertiary hospital.

The pool of doctors is another important factor to consider. Over the past 15 years there has not been an increase in the number of doctors or specialists that have been trained. Assuming that a certain percentage will be lost to the private sector and the overseas market, it means that the pool has remained constant, even with the introduction of OSD, this pool remained the same. Therefore OSD has only succeeded in increasing the salary of doctors but could not increase the numbers. It stands to reason that when OSD was introduced for the purpose of increasing the number of doctors in the public sector, there should be a

concomitant increase in the number of doctors that are trained. A further study on the number of applicants against the advertisement for these posts could possibly provide evidence of increase attraction from the applicants who could not be appointed due to lack of funded posts.

Ferrinho and dal Poz (2003) highlighted the need for a efficient health care system: (a) HR Policy, regulation and planning, (b) Classification of health establishments and deployment of health professionals according to the levels of care (c) Management and performance improvement, (d) Labour market, Education, training and research, (e) HRH and priority health programmes and (f) Monitoring and evaluation. The recent publication of Human Resource of Health by the Department of Health tried to address this issue by projecting the number of doctors required in next fifteen years and allocation of funds for the increase in numbers (Department of Health, 2011b). In addition, the Department of Health recently classified this Hospital as a central Hospital, which probably would improve the situation (Department of Health, 2011a).

Work-hours and salary are found to be one of the major contributory factors (Kaur, 2009). Although the OSD may address the issue of salary, the work–hour probably remained unbearably high in the majority of the Departments.

The high number of vacant posts over the years put extra burden of the doctors who remained in the Hospital. If this burden does not get addressed, the Hospital may loose more doctors, as it will be perceived as indifference from management to address this issue (Schneider and Oyedele, 2005). The staff views organisational commitment as one of the key factors for job satisfaction (McManus, Keeling, Paice, 2004; Jacobs and Roodt, 2008) and the Hospital should provide that leadership and take every effort to fill in these vacant posts.

Highly demanding situations with extreme pressure and strain in public hospitals in South Africa often leads to increased stress, burnout and lack of job

satisfaction which ultimately contributes to a decline in work performance, absenteeism, and intent to leave work (von Holdt, and Murphy, 2006). A burn-out study would be able to provide the evidence of the impact of such high vacancy rate among the doctors.

Another important aspect is the ability of the Hospital to provide promotion prospects to the doctors (Medical officer to registrar, Registrar to Specialist and Specialist to Principal and Chief specialist). Awases, Gbary, Nyoni, et al. (2004) found promotion prospects has a huge impact on staff retention and should be explored further in this Hospital.

5.4 THE PROFILE OF MEDICAL DOCTORS

5.4.1 GENDER

The gender profile for 2008 compared to 2010 was essentially the same. The proportion of female doctors remained unchanged (39%, 2008 and 40%, 2010). An analysis of different department showed:

- The Anaesthesiology Department always employed more female doctors (61%).
- There was an increase in female doctors in Medicine (2008, 42%; 2010, 48%).
- In contrast, the number of female doctors in all the Surgical Units were very low in (2008, 18%; 2010, 15%) in these Units. In some of the Surgical Units, there were no female doctors (such as Paediatric Surgery and Urology). This is traditionally seen in all the Hospital across the world.
- The Obstetrics and Gynaecology employed few female in comparison to Paediatrics, Radiology.

5.4.2 ETHNICITY

The proportion of Black (B) and Coloured (C) doctors increased slightly from 2008 to 2010 whereas the proportion of White (W) and Indian (I) doctors decreased slightly, but these differences is not statistically significant. This is probably due to affirmative action policy followed by the Hospital management in terms of appointing the medical doctors.

In comparison to Medicine Department, the Surgery Department employed more White and Indian doctors. The Plastic Surgery is the only Unit, where all the specialists were White. All the specialists in the Obstetrics and Gynaecology Department were Black.

5.4.3 AGE

There were no significant changes in the mean age of the doctors working in the Hospital. As expected the specialists were generally older than the registrars and medical officers except few departments [such as Anaesthesiology (mean age 47), Internal medicine (mean age 44), General Surgery (mean age 50), Cardio-thoracic Surgery (mean age 49), ENT (57), Paediatrics (50), Radiology (48), Nuclear medicine (60)]. These doctors should be encouraged to work in the District hospitals which would benefit from their experience.

5.4.4 NATIONALITY

The nationality of doctors working in the different units is described in the Table 4.30. The majority of doctors were South Africans which increased from 90% (2008) to 92% in 2010. The Clinical Pharmacology is the only Department where the doctors are non-South Africans.

CHAPTER 6
CONCLUSION AND RECOMMENDATIONS

In this chapter, the results obtained from this study were assessed in relation to the aims and objectives of the study, so that appropriate conclusions can be drawn. The limitations of the study were listed. Based on the findings of the study, appropriate recommendations and suggestions for future research were included.

5.1 CONCLUSIONS RELATED TO THE AIMS OF THE STUDY

This was a cross-sectional study that looked at broad issues pertaining to the influence of OSD with particular reference to the effects that OSD had on job retention and attraction of doctors into the public sector are discussed.

6.1.1 THE VACANCY RATE FOR DOCTORS AT OVER A TWO YEAR PERIOD

The study showed that there were no significant changes in the vacancy rates before and after the introduction of OSD. In 2008 the total vacancy rate was 35.8% and which decreased marginally in 2010 (35.4%). The study found that in spite of introduction of OSD, vacancy rates in most of the departments remained same while there were small increases or decreases in others (Table 5.1).

6.1.2 THE DEMOGRAPHIC PROFILE OF DOCTORS WORKING AT THE DGMH OVER A TWO YEAR PERIOD

The gender profile for 2008 compared to 2010 was essentially the same. The proportion of female doctors remained unchanged (39%, 2008 and 40%, 2010). The proportion of Black and Coloured doctors increased slightly from 2008 to 2010 whereas the proportion of White and Indian doctors decreased slightly

probably due to affirmative action policy followed by the Hospital management in terms of appointing the medical doctors. There were no significant changes in the mean age of the doctors working in the Hospital. As expected the specialists were generally older than the registrars and medical officers. More South African doctors were appointed in 2010 (92%) in comparison to 2008 (90%).

6.2 LIMITATIONS OF THE STUDY

The limitations of the study are as follows:

- There was paucity of literature on the subject. No study was done in the past which could be used as a benchmark to compare the findings of the study.
- The study was based on secondary analysis of existing information.
- The study might not be reproducible in other tertiary hospitals within Gauteng Province or South Africa because of the circumstances that prevail at DGMH.

6.3 RECOMMENDATIONS

The recommendations made below were based on the findings from this study as well as from the Human Resource Directorate of the Hospital. The analysis of the data also revealed some areas that need to be evaluated and recommendations were made based on the results of this study. Recommendations for further or more in depth research were also highlighted.

6.3.1 FOLLOW UP

Human resource for health is currently a priority for the Department of Health. This study would hopefully assist the Department of Health to develop an understanding of the vacancy rates of the medical doctors and the need to allocate more funds for filling-in vacant unfunded posts. Outcomes of the

research will be presented to the Hospital management and provincial and national Department of Health.

6.3.2 FUTURE RESEARCH

The findings of this study suggested that OSD was a poor retention strategy in the Dr George Mukhari Hospital. Further study is necessary to prove or disprove this hypothesis in other hospitals.

The researcher would also like to propose a long-term prospective study that would involve interviewing medical doctors who remain in the Hospital to develop an understanding of their motivation for staying in the public sector. In addition, exit interviews should be conducted for doctors who would resign.

6.4 SUMMARY AND CONCLUSIONS

This is the first study that looked at broad issues pertaining to the impact of occupational specific dispensation on the vacancy rate of doctors working at a tertiary academic hospital. The study found that the OSD had little impact on the vacancy rate which remained significantly high even after introduction of OSD. This is possibly due to lack of additional funding to fill-in additional posts. The findings of this study suggested that OSD was a poor retention strategy in the Dr George Mukhari Hospital. Similar studies should be done in other public hospitals to determine if this is indeed an universal phenomenon.

The Hospital employed around 40% female doctors. The majority of doctors were Black and Coloured doctors, although certain department were still staffed by White doctors. There were no significant changes in the mean age of the doctors working in the Hospital. As expected the specialists were generally older than the registrars and medical officers. More South African doctors were appointed in 2010 in comparison to 2008. This study highlighted the need for encouraging

more females and younger students to study medicine and to specialise in certain disciplines such as Surgery. Employment equity should be implemented by increasing the absolute number and not by keeping the numbers the same and rearranging the demographics. If both processes are to happen simultaneously, there would have to be an absolute increase in health spending in the public sector. The nationality profile might need to be changed as an interim measure because it takes time to establish new medical schools or increase the number of doctors trained at all the existing medical schools. With the imminent introduction of NHI, this might be the only viable option. This assumes that the funding model for NHI will dramatically increase the funding in the public sector allowing for OSD and an increase in funded vacant posts simultaneously.

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APPENDICES

APPENDIX A: ETHICS CLEARENCE CERTIFICATE AND LETTER OF PERMISSION FROM GAUTENG DEPARTMENT OF HEALTH AND SOCIAL DEVELOPMENT

APPENDIX B: DATA COLLECTION SHEET